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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,680	11/29/2001	Zahid Ansari	19730-000110US	3828
20350	7590	05/07/2004	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			TRA, ANH QUAN	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 05/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/937,680

Applicant(s)

ANSARI ET AL.

Examiner

Quan Tra

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the amendment filed 11/13/2003. The allowable subject matters of claims 21-30 have been withdrawn. A new ground of rejection is introduced.

Drawings

The drawing of figure 3 is objected because it is misdescriptive. Page 7 of the specification recite "switch SW22 is maintained in a conducting state while switch SW21 is maintained in a non-conducting state". However, figure 3 shows the opposite. Correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 21-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Otsuka (USP 4325112).

As to claims 21 and 26, Otsuka discloses in figures 3 and 4 an apparatus, and method thereof, to generate a pulse width modulated voltage signal, the apparatus comprising: a DC voltage source (Ed); a first switching circuit comprising a first switch (T11) and a second switch (T12) configured in a series circuit, the first switching circuit electrically coupled in parallel with the DC voltage source; a second switching circuit comprising a third switch (T22) and a fourth switch (T21) configured in a series circuit, the second switching circuit electrically coupled in parallel with the DC voltage source;

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an output comprising a first electrical junction (a or c) coupling the first switch with the second switch and a second electrical junction (d or b) coupling the third switch with the fourth switch; the second switching circuit configured to maintain the third switch (T22) in a conducting state while the fourth switch is maintained in a non-conducting state (figures 4F and 4G) so as to establish a first polarity of an output signal (figure 4H); the first switching circuit configured to switch the first switch and the second switch at a modulation frequency (figures 4D and 4E); the first switching circuit configured to maintain the second switch in a conducting state while maintaining the first switch in a non-conducting state (figures 4D and 4E) so as to establish a second polarity of the output signal, the second polarity being the reverse polarity of said first polarity; and the second switching circuit configured to switch the third switch and the fourth switch at the modulation frequency (figures 4F-4H).

As to claims 22 and 27, figures 3 and 4 show the first switching circuit and the second switching circuit are configured as part of an application specific integrated circuit.

As to claims 23 and 28, figures 3 and 4 show the first switching circuit is configured to produce a positive pulse width modulated output signal during about one half cycle of a fundamental output period; and wherein the second switching circuit is configured to produce a negative pulse width modulated output signal during the other half cycle of the fundamental output period.

As to claims 24 and 29, it is seen as an intended use for using motor as load circuit.

As to claims 25 and 30, figure 3 shows a microprocessor (1-14) electrically coupled to the first switching circuit and to the second switching circuit, the microprocessor configured to control the first switching circuit and the second switching circuit.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quan Tra whose telephone number is 571-272-1755. The examiner can normally be reached on 8:00 A.M.-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Quan Tra', with a long horizontal flourish extending to the right.

Quan Tra
Patent Examiner

May 3, 2004